NATURAL RESOURCES CONSERVATION SERVICE

CONSERVATION PRACTICE STANDARD

RECREATION LAND GRADING AND SHAPING
(Acre)
CODE 566

DEFINITION

Reshaping the surface of the land to support recreation land use.

PURPOSES

This practice may be applied as part of a resource management system to support one or more of the following purposes:

- Establish or improve effective use of the land area for recreation;
- Minimize on-site and off-site damage to resources from recreation land use.

CONDITIONS WHERE PRACTICE APPLIES

On land areas where surface irregularities, slopes, obstructions, or surface drainage interfere with planned recreational use, or where such use requires designed land surfaces.

CRITERIA

General Criteria Applicable to All Purposes

All planned work shall comply with Federal, State, Local and Tribal laws and regulations.

The grading or shaping shall be conducive to the overall recreation area and aesthetically blend with the general landscape and surroundings.

The grading or shaping shall be configured to minimize adverse on-site and off-site impacts such as accelerated erosion, riparian zone degradation, stream channel and streambank damage, hydrology modification, other water resource damage, aesthetics or unacceptable damage to wildlife habitat, fragmentation, or restrict wildlife movement.

Grading and Shaping - If only shaping is required, the cuts and fills may be estimated by observation or by a minimum amount of surveying. If grading to uniform surfaces is required, the design shall be based on a complete topographic or grid survey. Grading and shaping for specific uses, such as athletic fields shall be according to the requirements of the intended use.

Cuts and fills shall be balanced to the greatest extent possible.

Soil compaction and displacement shall be kept to a minimum.

Surface drainage - Plans shall include measures for removing or otherwise providing for control of excess surface water.

Erosion control - Plans shall include provisions for control of erosion. Disturbed areas shall be established to vegetation as soon as practicable after construction. If soil or climatic conditions precludes the use of vegetation, and protection is needed, non-vegetative means, such as mulches or gravel, may be used. Seedbed preparation, seeding, fertilizing, and mulching shall be according to the appropriate conservation practice standard in the local Field Office Technical Guide. Use vegetation adapted to the site that will accomplish the desired purpose. Preference shall be given to native plant species. If native plant materials are not adaptable or proven effective for the planned use, then non-native species may be used.

CONSIDERATIONS

Consider adjoining land uses and the proximity to residences, utilities, cultural resource areas, threatened and endangered species of plants and animals, wetlands or other environmentally sensitive areas, and areas of special scenic value.

Consider the effects of increased recreation and activities on the quality of both surface and ground water quality.

Consider maintaining or improving habitat for fish and wildlife where applicable.

Where feasible and appropriate, soil material suited for plant growth should be salvaged, stockpiled and protected for use as final cover material.

Cultural Resources Considerations

NRCS's objective is to avoid any effect to cultural resources and protect them in their original location. Determine if installation of this practice will have any effect on any cultural resources.

Document any specific considerations for cultural resources in the design docket and the Practice Requirements worksheet.

GM 420, Part 401, the California Environmental Handbook and the California Environmental Assessment Worksheet provide guidance on how the NRCS must account for cultural resources. The Field Office Technical Guide, Section II contains general information, with Web sites for additional information.

Endangered Species Considerations

Determine if installation of this practice, along with any others proposed, will have an effect on any federal or state listed Rare, Threatened or Endangered species or their habitat. NRCS's objective is to benefit these species and others of concern, or at least not have any adverse effect on a listed species. If the Environmental Evaluation indicates that the action may adversely affect a listed species or result in adverse modification of habitat of listed species which has been determined to be critical habitat, NRCS will advise the land user of the requirements of the Endangered Species Act and recommend alternative conservation treatments that avoid the adverse effects. Further assistance will be provided only if the landowner selects one of the alternative conservation treatments for installation; or at the request of the landowners, NRCS may initiate consultation with the U.S. Fish and Wildlife Service, National Marine Fisheries Service and/or California Department of Fish and Game. If the Environmental Evaluation indicates the action will not affect a listed species or result in adverse modification of critical habitat, consultation generally will not apply and usually would not be initiated. Document any special considerations for endangered species in the Practice Requirements Worksheet.

Water Quantity

1. Effects of grading on runoff and surface storage;

2. Effects of the amount and timing of decreased infiltration on evapotranspiration, change in soil moisture in the root zone, and deep percolation.

Water Quality

1. Effects of erosion and sediment yield on changes in runoff. Factors are the slope of the land before and after grading, the results caused by the construction process, and the amount of vegetation reestablished on the graded or shaped site.

2. Effects on ground water quality of decreased loading of dissolved pollutants, particularly the dissolved nutrients from decaying surface residues.

3. Effects of increased recreation and activities on the quality of both surface and ground water quality.

PLANS AND SPECIFICATIONS

Plans and specifications for recreation land grading and shaping shall be in keeping with this standard and shall describe the requirements for applying the practice to achieve its intended purpose. Plans and specifications shall include construction plans, drawings, job sheets or other similar documents. These documents shall specify the requirements for installing the practice, including the kind, amount and quality of materials to be used.

OPERATION AND MAINTENANCE

An Operation and Maintenance (O&M) plan shall be prepared for and reviewed with the landowner or operator. The plan shall specify that the treated areas and associated practices are inspected annually and after significant storm events to identify repair and maintenance needs.